

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A An isolated DNA encoding a variant of the protein of SEQ ID NO:4, having substantially the same insecticidal activity as the protein of SEQ ID NO:4 or an insecticidally-effective fragment thereof, wherein said DNA

hybridizes under stringent hybridization conditions to the DNA of SEQ ID NO:4 from nucleotide position 797 to nucleotide position 2641 and wherein said stringent hybridization conditions are established as follows using the following consecutive steps:

- a. immobilizing DNA fragments on a filter;
- b. prehybridizing said filter for 1 to 2 hours at 42°C in 50% formamide, 5 X SSPE, 2 X Denhardt's reagent and 0.1% SDS, or for 1 to 2 hours at 68°C in 6 X SSC, 2 X Denhardt's reagent and 0.1 % SDS;
- c. adding a hybridization probe, which has been radiolabeled;
- d. incubating for 16 to 24 hours;
- e. washing said filter for 20 minutes at room temperature in 1 X SSC, 0.1% SDS;
- f. washing said filter three times for 20 minutes each at 68°C in 0.2 X SSC, 0.1 % SDS; and
- g. autoradiographing said filter by exposing said filter for 24 to 48 hours to X-ray film at -70°C with an intensifying screen; and

wherein said DNA comprises the nucleotide sequence of SEQ ID NO:2 from nucleotide position 198 to nucleotide position 1561, and the nucleotide sequence of SEQ ID NO:3 from nucleotide position 1 to nucleotide position 1145, or a degenerate DNA sequence thereof, wherein one or more amino acid codons have been replaced with others without changing the amino acid sequence of the protein.

2. (Currently Amended) A An isolated DNA encoding a protein with insecticidal activity against an insect selected from the group consisting of ~~Spodoptera exigua, Spodoptera littoralis, Spodoptera frugiperda, Agrotis ipsilon, Mamestra brassica, Heliothis virescens, Ostrinia nubilalis, and Plutella xylostella~~ Spodoptera exigua, Spodoptera littoralis, Spodoptera frugiperda, Agrotis ipsilon, Mamestra brassica, Heliothis virescens, Ostrinia nubilalis, and Plutella xylostella, wherein said DNA comprises the nucleotide sequence of SEQ ID NO:2 from nucleotide position 198 to nucleotide position 1561 or a degenerate DNA sequence thereof wherein one or more amino acid codons have been replaced with others without changing the amino acid sequence of the protein.

3. (Currently Amended) A An isolated DNA encoding a protein with insecticidal activity against an insect selected from the group consisting of ~~Spodoptera exigua, Spodoptera littoralis, Spodoptera frugiperda, Agrotis ipsilon, Mamestra brassica, Heliothis virescens, Ostrinia nubilalis, and Plutella xylostella~~ Spodoptera exigua, Spodoptera littoralis, Spodoptera frugiperda, Agrotis ipsilon, Mamestra brassica, Heliothis virescens, Ostrinia nubilalis, and Plutella xylostella, wherein said DNA comprises the nucleotide sequence of SEQ ID NO:3 from nucleotide position 1 to nucleotide position 1145 or a degenerate DNA sequence thereof, wherein one or more amino acid codons have been replaced with others without changing the amino acid sequence of the protein.

4. (Withdrawn) A protein encoded by the DNA of any one of claims 1 to 3.